

## CLAIMS

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1        1. A computer-implemented method for compressing data, the method  
2 comprising:  
3        applying a dynamic prediction function to the data to yield first compressed  
4        data;  
5        applying a Golomb coding function to the first compressed data to yield  
6        second compressed data; and  
7        outputting the compressed data.

1        2. The method of claim 1 wherein the data is image data.

1        3. The method of claim 1 wherein the data is audio data.

1        4. The method of claim 1 further comprising transforming the data from a  
2 first domain to a second domain prior to applying the dynamic prediction function.

1        5. The method of claim 4 wherein the first domain is an RGB domain and the  
2 second domain is a YUV domain.

1        6. The method of claim 4 wherein the first domain is a left and right channel  
2 domain and the second domain is a UV domain.

1        7. The method of claim 1 wherein the first compressed data has a Laplacian  
2 distribution.

1           8. A computer program product for compressing data, the computer  
2 program product stored on a computer-readable medium containing executable  
3 instructions configured to cause a computer to perform the steps of:  
4           applying a dynamic prediction function to the data to yield first compressed  
5           data;  
6           applying a Golomb coding function to the first compressed data to yield  
7           second compressed data; and  
8           outputting the compressed data.

1           9. The computer program product of claim 8 wherein the data is image data.

1           10. The computer program product of claim 8 wherein the data is audio data.

1           11. The computer program product of claim 8 further comprising  
2 instructions configured to cause a computer to transform the data from a first  
3 domain to a second domain prior to applying the dynamic prediction function.

1           12. The computer program product of claim 11 wherein the first domain is  
2 an RGB domain and the second domain is a YUV domain.

1           13. The computer program product of claim 11 wherein the first domain is a  
2 left and right channel domain and the second domain is a UV domain.

1           14. The computer program product of claim 8 wherein the first compressed  
2 data has a Laplacian distribution.

- 1        15. A system for compressing data, the system comprising:  
2        a dynamic predictor for compressing a data stream using dynamically  
3        predicted coefficient values in order to produce a first compressed  
4        streaming having a Laplacian distribution;  
5        an adaptive golomb Engine, communicatively coupled to the dynamic  
6        predictor, for receiving the first compressed stream and further  
7        compressing the first compressed stream to form a second compressed  
8        stream.
- 1        16. The system of claim 15 wherein the data is image data.
- 1        17. The system of claim 15 wherein the data is audio data.
- 1        18. The system of claim 15 further comprising a pre-processing engine for  
2        transforming the data from a first domain to a second domain prior to applying the  
3        dynamic prediction function.
- 1        19. The method of claim 17 wherein the first domain is an RGB domain and  
2        the second domain is a YUV domain.
- 1        20. The method of claim 17 wherein the first domain is a left and right  
2        channel domain and the second domain is a UV domain.
- 1        21. A data compression system for compressing data, the system comprising:  
2        receiving means receiving for data to be compressed;  
3        dynamic predicting means, coupled to the receiving means, for applying a  
4        dynamic prediction function to the data to yield first compressed data;

5 Golomb coding means, communicatively coupled to the dynamic predicting  
6 means, for applying a Golomb coding function to the first compressed  
7 data to yield second compressed data; and  
8 outputting means, communicatively coupled to the Golomb coding means,  
9 for outputting the compressed data.